

REMARKS

This is a full and timely response to the non-final Office Action mailed on August 15, 2005 by the United States Patent and Trademark Office. Claims 1-46 remain pending in the application. Claims 6, 7, 20-27, and 28-46 were withdrawn in response to a restriction requirement. Claims 1 and 28 are independent claims. Claims 1, 11, and 28 have been amended, and claims 2 and 30 have been cancelled. No new matter is believed to have been added. Reconsideration is respectfully requested in light of the foregoing amendments and the following remarks.

I. REJECTIONS BASED UPON 35 U.S.C. §112

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action states that the range of claim 10 [sic] overlaps with the range of claim 11.

Claim 11 has been amended and now recites that the second pressure is greater than 3 psi and less than about 10 psi. Accordingly, the Applicants respectfully request withdrawal of this rejection.

II. REJECTIONS BASED UPON 35 U.S.C. §102

The Examiner alleges that claims 1-3, 5, 8, 10, 11, 13, 14-16, 18, and 19 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 6,117,775 (Kondo).

Independent claim 1 has been amended and now recites pretreating a copper layer of the work piece to substantially remove a film that is disposed thereover and that is more resistant to polishing than copper and polishing the copper layer by creating relative movement between the copper layer and a polishing surface at a first pressure in the presence of a polishing solution.

Kondo teaches a metal film polishing method wherein a metal film surface is mechanically rubbed using a polishing solution, which does not comprise a polishing abrasive or comprises a polishing abrasive at a low concentration of less than 1 wt% and which has a pH and oxidation-reduction potential within the domain of corrosion of the metal film. See col. 6, lines 5-14. However, Kondo does not disclose or suggest pretreating a copper layer to

substantially remove a film that is disposed thereover and that is more resistant to polishing than copper.

A claim can only be anticipated if each and every element recited in the claim is disclosed in a reference, either explicitly or impliedly. Accordingly, as Kondo fails to disclose, either explicitly or inherently, at least the above-noted element of claim 1 and the Examiner has failed to provide such an explicit or inherent disclosure of this element, it is respectfully submitted that the rejection of these claims and the claims that depend therefrom is improper and the Applicants request withdrawal of the § 102(b) rejection.

Claim 1 is rejected under 35 U.S.C. 102(e) as allegedly being anticipated by U.S. Patent No. 6,629,878 (Zhong). The Applicants respectfully traverse this rejection.

Zhong relates to a method of surface treating an article having a metal surface by processing the article such that a surface layer is formed on the surface exhibiting properties different from those of the underlying metal; chemically removing the surface layer and/or chemically modifying the surface such that the surface defects upon subsequent surface treatment are reduced and surface treating the article. However, nowhere does Zhong disclose or suggest pretreating a copper layer of the work piece to substantially remove a film that is disposed thereover and that is more resistant to polishing than copper and polishing the copper layer by creating relative movement between the copper layer and a polishing surface at a first pressure in the presence of a polishing solution, as recited in claim 1. Accordingly, as Zhong fails to disclose, either explicitly or inherently, at least the above-noted element of claim 1 and the Examiner has failed to provide such an explicit or inherent disclosure of this element, it is respectfully submitted that the rejection of this claim is improper and the Applicants request withdrawal of the § 102(e) rejection.

Claims 1-4, 8-12, 14-16, 18, 28-32, and 34-47 were rejected under 35 U.S.C. 102(e) as allegedly being anticipated by U.S. Patent Application Pub. No. 2003/0022501 (Tsai et al.). The Applicants respectfully traverse these rejections.

As mentioned above, claim 1 has been amended. Similarly, claim 28 has been amended to now relate to a method for polishing a workpiece, where the method comprises, *inter alia*, polishing a film that is disposed over a copper layer on the workpiece and that is more resistant

to polishing than copper by creating relative motion between the film and a polishing surface at a first pressure until the polish-resistant film is substantially removed and polishing the copper layer by creating relative motion between the copper layer and a polishing surface at a second pressure in the presence of a substantially non-abrasive polishing solution.

Tsai does not recite each and every element of either claim 1 or 28. Nowhere does Tsai discuss pretreating a copper layer of the work piece to substantially remove a film that is disposed thereover and that is more resistant to polishing than copper and polishing the copper layer by creating relative movement between the copper layer and a polishing surface at a first pressure in the presence of a polishing solution, as recited in claim 1. Moreover, Tsai does not suggest or mention a method for polishing a workpiece, where the method comprises, *inter alia*, polishing a film that is disposed over a copper layer on the workpiece and that is more resistant to polishing than copper by creating relative motion between the film and a polishing surface at a first pressure until the polish-resistant film is substantially removed and polishing the copper layer by creating relative motion between the copper layer and a polishing surface at a second pressure in the presence of a substantially non-abrasive polishing solution, as recited in claim 28. Instead, Tsai discusses removal of conductive materials from a substrate surface. See col. 2, para. 27.

Claims 2-4, 8-12, 14-16, and 18 depend from claim 1 and claims 29-32 and 34-37 depend from claim 28. Therefore, these claims rely on the above arguments. Accordingly, reconsideration and withdrawal of these rejections is respectfully requested.

III. REJECTIONS BASED UPON 35 U.S.C. §103

Claims 4, 9, 12, and 17 were rejected under 35 U.S.C. 103 as allegedly being unpatentable over Kondo. Claims 4, 9, 12, and 17 all depend from independent Claim 1. Therefore, these claims rely on the arguments presented above. Accordingly, these claims should be allowed.

CONCLUSION

Based on the above, independent Claims 1 and 28 are patentable over the citations of record. The dependent claims are also submitted to be patentable for the reasons given above with respect to the independent claims and because they recite features which are patentable in their own right. Individual consideration of the dependent claims is respectfully solicited.

The other art of record is also not understood to disclose or suggest the inventive concept of the present invention as defined by the claims.

In view of the Applicants' amendments and remarks, it is respectfully submitted that Examiner's rejections have been overcome. Accordingly, the Applicants respectfully submit that the application, as amended, is now in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, the Applicants request that the Examiner contact the Applicants' attorneys at the below-listed number.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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